WHAT IS CLAIMED IS:

1. An apparatus for adhesive binding an assembly of plural sheets with a backed hot melt adhesive sheet to form a book-like structure, the apparatus comprising:

means for contacting the backed hot melt adhesive sheet to a spine surface of the assembly of plural sheets, the contacting means having a contacting surface for contacting the spine surface, and the spine surface being perpendicular to a planar surface of the assembly of plural sheets;

means for applying force to the planar surface in an area where the backed hot melt adhesive sheet contacts the planar surface, the force applying means being mounted for movement with the contacting means; and

means for actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet to below a glass transition temperature of the hot melt adhesive.

2. The apparatus of claim 1, wherein the means for contacting includes a platen, and the means for applying force includes at least two clamping bodies, the platen and the at least two clamping bodies forming a clamping jaw translatable in a first direction toward the spine surface and the at least two clamping bodies each having an opposing surface, the opposing surfaces being translatable in a

second direction to move a first of the opposing surfaces towards or away from a second of the opposing surfaces.

3. An apparatus for adhesive binding an assembly of plural sheets with a backed hot melt adhesive sheet to form a book-like structure, the apparatus comprising:

a platen with a contacting surface oriented parallel to a spine surface of the assembly of plural sheets, the platen being translatable in a first direction;

at least two clamping bodies, a first clamping body having an opposing surface oriented parallel to and facing an opposing surface of a second clamping body; and

an active heat sink attached to and in thermal communication with at least one of the platen and the at least two clamping bodies.

4. The apparatus of claim 3, wherein the active heat sink changes a temperature of a hot melt adhesive of the backed hot melt adhesive sheet to below a glass transition temperature of the hot melt adhesive.

5. The apparatus of claim 3, wherein the active heat sink includes a Peltier device, a device with internal circulation of a cooling medium, or a Joule-Thomson device.

6. The apparatus of claim 5, wherein the cooling medium is a liquid, a gas, or an expanding gas.

7. The apparatus of claim 3, wherein the platen and the at least two clamping bodies form a clamping jaw, the clamping jaw translatable in the first direction toward the spine surface and the at least two clamping bodies translatable in a second direction to move a first of the opposing surfaces towards or away from a second of the opposing surfaces.

8. The apparatus of claim 7, wherein the first direction is perpendicular to the second direction.

9. The apparatus of claim 3, wherein the platen is at least coextensive with a major length of the spine surface in a dimension parallel to the spine surface.

10. The apparatus of claim 3, wherein at least one of the clamping bodies is at least coextensive with a major length of the spine surface in a dimension parallel to the spine surface.

11. The apparatus of claim 3, wherein the opposing surfaces of the clamping bodies are oriented toward a planar surface of a sheet of the assembly of plural sheets.

12. The apparatus of claim 3, wherein the opposing surfaces of the clamping bodies are translatable to an engaged position to apply force to the sheet of the assembly of plural sheets.

13. The apparatus of claim 3, wherein the clamping bodies are non-rotating.

14. The apparatus of claim 3, wherein the clamping bodies are non-rolling.

15. An apparatus for adhesive binding an assembly of plural sheets with a backed hot melt adhesive sheet to form a book-like structure, the apparatus comprising:

a platen;

a first forming plate;

a second forming plate; and

an active heat sink attached to and in thermal communication with at least one of the platen, the first forming plate and the second forming plate,

wherein the first forming plate and second forming plate are individually pivotably moveable about the assembly of plural sheets from a first position to a second position, and

wherein in the first position, each of the first and second forming plates has a contacting surface oriented parallel to a spine surface of the assembly of plural sheets and in the second position, the contacting surface of the first forming plate and the contacting surface of the second forming plate opposingly face each other and are each parallel to and facing a planar surface of the assembly of plural sheets.

16. The apparatus of claim 15, wherein the first and second forming plates are each individually pivotable to maintain contact between the contacting surface and the backed hot melt adhesive sheet as the first forming plate and second forming plate individually pivotably move about the assembly of plural sheets from the first position to the second position.

17. The apparatus of claim 15, wherein each of the first and second forming plates is at least coextensive with a major length of the spine surface in a dimension parallel to the spine surface.

18. The apparatus of claim 15, wherein the platen is at least coextensive with a major length of the spine surface in a dimension parallel to the spine surface.

19. The apparatus of claim 15, wherein the active heat sink includes a Peltier device, a device with internal circulation of a cooling medium, or a Joule-Thomson device.

20. The apparatus of claim 19, wherein the cooling medium is a liquid, a gas, or an expanding gas.

21. The apparatus of claim 15, wherein the active heat sink changes a temperature of a hot melt adhesive of the backed hot melt adhesive sheet to below a glass transition temperature of the hot melt adhesive.

22. The apparatus of claim 21, wherein the temperature below the glass transition temperature is sufficient to cure or solidify the hot melt adhesive.

23. The apparatus of claim 21, wherein the platen is translatable from a non-contacting position to a contacting position, wherein in the non-contacting position the platen does not contact the backed hot melt adhesive sheet and in the contacting position the platen contacts the backed hot melt adhesive sheet.

24. The apparatus of claim 23, wherein the platen in the contacting position applies at least a neutral force to an assembly of plural sheets.

25. The apparatus of claim 24, wherein the force applied to the assembly of plural sheets is at least a result of 5-10 psi pressure.

26. A method of binding an assembly of plural sheets to form a book-like structure, the method comprising:

contacting a translatable first contacting surface to a backed hot melt adhesive sheet located on a spine surface of the assembly of plural sheets, the spine surface being perpendicular to a planar surface of the assembly of plural sheets;

applying force with at least a translatable second contacting surface to the planar surface in an area where the backed hot melt adhesive sheet contacts the planar surface; and

actively withdrawing heat from the backed hot melt adhesive sheet to bring a temperature of a hot melt adhesive of the backed hot melt adhesive sheet to below a glass transition temperature of the hot melt adhesive.

27. The method of claim 26, wherein the second contacting surface is mounted for movement with the first contacting surface.

28. The method of claim 26, wherein actively withdrawing heat includes actively withdrawing heat with an active heat sink attached to and in thermal communication with at least one of the first contacting surface and the second contacting surface to solidify or cure the hot melt adhesive.

29. A method of binding an assembly of plural sheets to form a book-like structure, the method comprising:

contacting a backed hot melt adhesive sheet to a spine surface of the assembly of plural sheets, wherein the backed hot melt adhesive sheet has at least one end portion protruding past the spine surface and forming an angle with a plane surface of at least one sheet of the assembly of plural sheets;

displacing a plurality of clamping bodies of a clamping jaw to a separation distance between opposing facing surfaces that is greater than a thickness of the assembly of plural sheets;

translating the clamping jaw relative to the spine surface of the assembly of plural sheets such that at least a portion of the clamping jaw contacts the at least one protruding end portion of the backed hot melt adhesive sheet and redirects the at least one protruding end portion toward the plane surface of the at least one sheet of the assembly of plural sheets;

contacting the assembly of plural sheets with the opposing facing surface of at least one of the clamping bodies to apply a force to the assembly of plural sheets, wherein the at least one protruding end portion is between at least a portion of the opposing facing surface and the assembly of plural sheets; and

absorbing heat from a hot melt adhesive of the backed hot melt adhesive sheet into at least a portion of the clamping jaw.

30. The method of claim 29, comprising softening the hot melt adhesive of the backed hot melt adhesive sheet prior to the sheet contacting the spine surface of the assembly of plural sheets, wherein softening includes raising a temperature of the hot melt adhesive above a glass transition temperature of the hot melt adhesive.

31. The method of claim 30, wherein at least a portion of the softened hot melt adhesive flows into at least a portion of the assembly of plural sheets.

32. The method of claim 29, comprising attaching the backed hot melt adhesive sheet to the spine surface of the assembly of plural sheets at discrete points and softening the hot melt adhesive of the backed hot melt adhesive sheet, wherein softening includes raising a temperature of the hot melt adhesive above a glass transition temperature of the hot melt adhesive.

33. The method of claim 32, wherein at least a portion of the softened hot melt adhesive flows into at least a portion of the assembly of plural sheets.

34. The method of claim 29, wherein a separation distance between opposing facing surfaces contacting the assembly of plural sheets sets a thickness of the bound book-like structure.

35. The method of claim 29, wherein the clamping jaw includes a platen having a contacting surface parallel to the spine surface of the assembly of plural sheets and the method comprises contacting the platen to the backed hot melt adhesive sheet contacting the spine surface simultaneously with contacting the assembly of plural sheets with the opposing facing surface of at least one of the clamping bodies to apply a force to the assembly of plural sheets.

36. A method of binding an assembly of plural sheets to form a book-like structure, the method comprising:

contacting a backed hot melt adhesive sheet to a spine surface of the assembly of plural sheets, wherein the backed hot melt adhesive sheet has at least one end portion protruding past the spine surface and forming an angle with a plane surface of at least one sheet of the assembly of plural sheets;

translating a first forming plate and a second forming plate relative to the spine surface of the assembly of plural sheets to a first position, wherein in the first position each of the first and second forming plates has a contacting surface

oriented parallel to the spine surface of the assembly of plural sheets and at least a portion of each of the first forming plate and the second forming plate contacts the backed hot melt adhesive sheet;

individually pivotably moving the first forming plate and the second forming plate about the assembly of plural sheets from the first position to a second position such that the protruding end portion of the backed hot melt adhesive sheet is redirected toward the plane surface of the at least one sheet of the assembly of plural sheets and is between at least a portion of the contacting surfaces and the assembly of plural sheets, wherein in the second position, the contacting surface of the first forming plate and the contacting surface of the second forming plate opposingly face each other and are each parallel to and facing a planar surface of the assembly of plural sheets;

applying a force to the assembly of plural sheets with the opposing facing contacting surface of at least one of the first forming plate and the second forming plate;

translating a platen from a non-contacting position to a contacting position, wherein in the non-contacting position the platen does not contact the backed hot melt adhesive sheet and in the contacting position the platen contacts the backed hot melt adhesive sheet; and

absorbing heat from a hot melt adhesive of the backed hot melt adhesive sheet into at least a portion of at least one of the first forming plate and the second forming plate.

37. The method of claim 36, comprising softening the hot melt adhesive of the backed hot melt adhesive sheet prior to the sheet contacting the spine surface of the assembly of plural sheets, wherein softening includes raising a temperature of the hot melt adhesive above a glass transition temperature of the hot melt adhesive.

38. The method of claim 37, wherein at least a portion of the softened hot melt adhesive flows into at least a portion of the assembly of plural sheets.

39. The method of claim 36, comprising attaching the backed hot melt adhesive sheet to the spine surface of the assembly of plural sheets at discrete points and softening the hot melt adhesive of the backed hot melt adhesive sheet, wherein softening includes raising a temperature of the hot melt adhesive above a glass transition temperature of the hot melt adhesive.

40. The method of claim 39, wherein at least a portion of the softened hot melt adhesive flows into at least a portion of the assembly of plural sheets

41. The method of claim 36, wherein each of the first forming plate and the second forming plate includes a Peltier device, a device with internal circulation of a cooling medium, or a Joule-Thomson device and wherein absorbing heat includes actively removing heat from the hot melt adhesive with the Peltier device, the device with internal circulation of a cooling medium, or the Joule-Thomson device.

42. The method of claim 36, wherein at least a portion of the contacting surface of the first forming plate and at least a portion of the contacting surface of the second forming plate each remain in contact with the backed hot melt adhesive sheet during the separable pivotable moving of the first forming plate and the second forming plate about the assembly of plural sheets from the first position to the second position.

43. The method of claim 36, wherein the platen in the contacting position applies at least a neutral force to an assembly of plural sheets.

44. The method of claim 36, wherein the force applied to the assembly of plural sheets is at least a result of 5-10 psi pressure.